Deformation Characteristics of Geomaterials

Comportement des Sols et des Roches Tendres

Edited by
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H. Geoffroy & C. Sauzéat
Discussion Session 5:
Modelling (rheological, mathematical, mechanical models)
Modélisation (modèles rhéologiques, mathématiques, mécaniques)

Neural network based prediction of silty sands behavior
S.S. Yasrobi & M. Banimahd

Experimentation and modelling of unsaturated soils behaviour in non-isothermal conditions
M. Abdellerin & P. de Buan

An illustrative model for assessing the influence of elastic non-linearity on the residual behaviour
of a platform subject to traffic loading
E. Vincens, Ph. Dubujet & B. Cambou

Cyclic behaviour of soils, a prediction of permanent deformations
T. Habibullah, C. Chazallon & C. Petit

Bifurcation analysis on soil specimens exhibiting diffuse deformation modes and localized slip planes
T. Yamakawa, K. Ikeda, K. Terada & K. Torii

Application of time-dependent model in tunnelling
A. Purwodihardjo & B. Cambou

Simplified method based on plasticity for the permanent strains of unbound granular materials
for flexible pavements
Y. Tamakawa, K. Ikeda, K. Terada & K. Torii

Validation of an elastoplastic model to predict secant shear modulus of natural soils by experimental results
J.A. Santos, A. Gomes Correia, A. Modaresi, F. Lopez-Caballero & R. Carriho Gomes

Application of fractal dimensions to examine the frictional behavior of granular materials
Z.Y. Yang, T.J. Wu & G.L. Yang

Discrete numerical simulation, quasi-static deformation and the origins of strain in granular materials
G. Combe & J.-N. Roux

A thermomechanical model for clays
I. Einav & A.M. Pazin

Shear behavior of sand under cyclic loading in general stress systems
T. Nakai, M. Hinoski, Y. Korenaga & H. Nogai

Numerical analysis on liquefaction-induced progressive deformation with a pore water migration
R. Utsuka, N. Sento & M. Kakezama

A simple constitutive model of sand based on strain-path controlled tests
Y. Asaka, K. Tokihata, K. Iwasaki & Y. Yamada

Bounding surface formulation of a unified critical state model for clay and sand
H.S. Yu & C.D. Khong

An elasto-plastic constitutive model at the overall strain ranges (10^-4 to 10%) for weathered soils
S. Oh, G.-C. Kuveon & D.-S. Kim

New strain energy hardening functions for sand based on the double yielding concept
S.J.M. Yasin & F. Tatsuoka

A framework for modelling of the time effects on the stress–strain behaviour of geomaterials
F. Tatsuoka, H. Di Benedetto & T. Nishi